

1   **What Is Claimed Is:**

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3           1.   A satellite system operating over a land  
4 mass comprising:

5               a first satellite generating a first  
6 plurality of spot beams directed at said land mass,  
7 said first set of spot beams partially covering said  
8 land mass;

9               a second satellite generating a second  
10 plurality of spot beams;

11              said first plurality of spot beams and said  
12 second plurality of spot beams in combination provide  
13 substantially ubiquitous coverage over the land mass.

1               2.   A satellite system as recited in claim  
2 1 wherein said first satellite and said second  
3 satellite are selected from the group consisting of a  
4 MEO, a GEO, and an IGSO.

1               3.   A satellite system as recited in claim  
2 1 wherein said spot beams are V band.

1               4.   A satellite system as recited in claim  
2 1 wherein said spot beams are K band.

1               5.   A satellite system as recited in claim  
2 1 wherein said first plurality of spot beams comprise  
3 a plurality of reconfigurable spot beams.

1               6.   A satellite system as recited in claim  
2 1 wherein said plurality of reconfigurable spot beams

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7. A satellite system as recited in claim 1 wherein at least one of said plurality of spot beams having a plurality of beam portions.

1                    8.    A satellite system as recited in claim  
2    1 wherein said at least one of said plurality of beam  
3    portions being independently adjustable in response to  
4    a condition.

1 9. A satellite system as recited in claim  
2 8 wherein said condition is rain

1           10. A satellite system as recited in claim  
2   8 wherein said condition is heavy traffic routed  
3   through said satellite.

1           11. A portable antenna assembly for  
2 communicating with a satellite comprising:

3                   a connector;  
4                   a transmission wire coupled to said  
5 connector; and  
6                   an antenna element coupled to said  
7 transmission wire, said antenna element sending and  
8 receiving signals from said satellite.

1                   12. A portable antenna assembly as recited  
2   in claim 11 wherein said antenna element comprises a  
3   parabolic dish.

1           13. A portable antenna assembly as recited  
2 in claim 11 wherein said antenna element comprises a  
3 phased array.

1           14. A portable antenna assembly as recited  
2 in claim 11 wherein said antenna element generates a  
3 mechanically steered electronically shaped beam.

1           15. A portable antenna assembly as recited  
2 in claim 11 further comprising a motor coupled to said  
3 antenna element.

1           16. A portable antenna assembly as recited  
2 in claim 15 further comprising an antenna controller  
3 coupled to said motor for controlling a position of  
4 said antenna element through said motor.

1           17. A system for communicating with a  
2 satellite comprising:  
3 an electronic device having a communications  
4 port; and  
5 a portable satellite antenna coupled to said  
6 communications port for coupling said electronic  
7 device directly to a satellite.

1           18. A system as recited in claim 17 wherein  
2 said electronic device has an antenna controller  
3 coupled to said electronic device.

1           19. A system as recited in claim 17 wherein  
2 said electronic device comprises a laptop computer.

1           20. A system as recited in claim 17 wherein  
2 said electronic device comprises a computer in an  
3 automotive vehicle.

1           27. A switch as recited in claim 22 further  
2 comprising a look up table, said look-up table  
3 providing a routing instruction to said controller.

1           30. A switch as recited in claim 22 wherein  
2   said bent pipe comprises a carrier frequency shifter.  
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